APPENDIX D
HEALTH AND SAFETY PLAN
FOR
ENVIRONMENTAL CONSERVATION AND CHEMICAL CORPORATION (ECC) SITE
AT
ZIONSVILLE, INDIANA

REVISION: 0

PREPARED FOR:

ECC SETTLING DEFENDANTS

MARCH, 1989

PREPARED BY:

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1.0 INTRODUCTION

This Health and Safety Plan attached as Appendix D of Exhibit A to the Consent Decree for the Environmental Conservation and Chemical Corporation (ECC) contains the procedures that are necessary to protect on-site personnel and the general public during the remediation at the ECC site (Zionsville, Indiana).

The objective of this Plan is to provide safety procedures to be followed during the implementation of the remedial action plan to establish emergency response procedures for extraordinary conditions that may occur. Guidelines for these procedures are based on an analysis of site specific potential hazards and the appropriate protective measures to mitigate these hazards. If hazards arise which are not covered in this Plan, the Plan will be ammended. The health and safety procedures presented in this plan are in accordance with the appropriate requirements of the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA), and the U.S. Environmental Protection Agency (USEPA).

Operations during Remedial Action will comply with OSHA 29 CFR 1910.120 and with the applicable subparts of OSHA 29 CFR 1926 (Construction Industry Standards) and OSHA 29 CFR 1910 (General Industry Standards). All drilling operations will comply with standard procedures for safe operation and movement of a drill rig.

2.0 GENERAL INFORMATION

The following section provides project personnel with the names and responsibilities of designated safety personnel, emergency telephone numbers, and the address of and evacuation route to the nearest hospital.

2.1 Project Safety Officer

The Project Safety Officer (PSO) is responsible for the daily supervision of all safety, decontamination, and environmental monitoring activities.

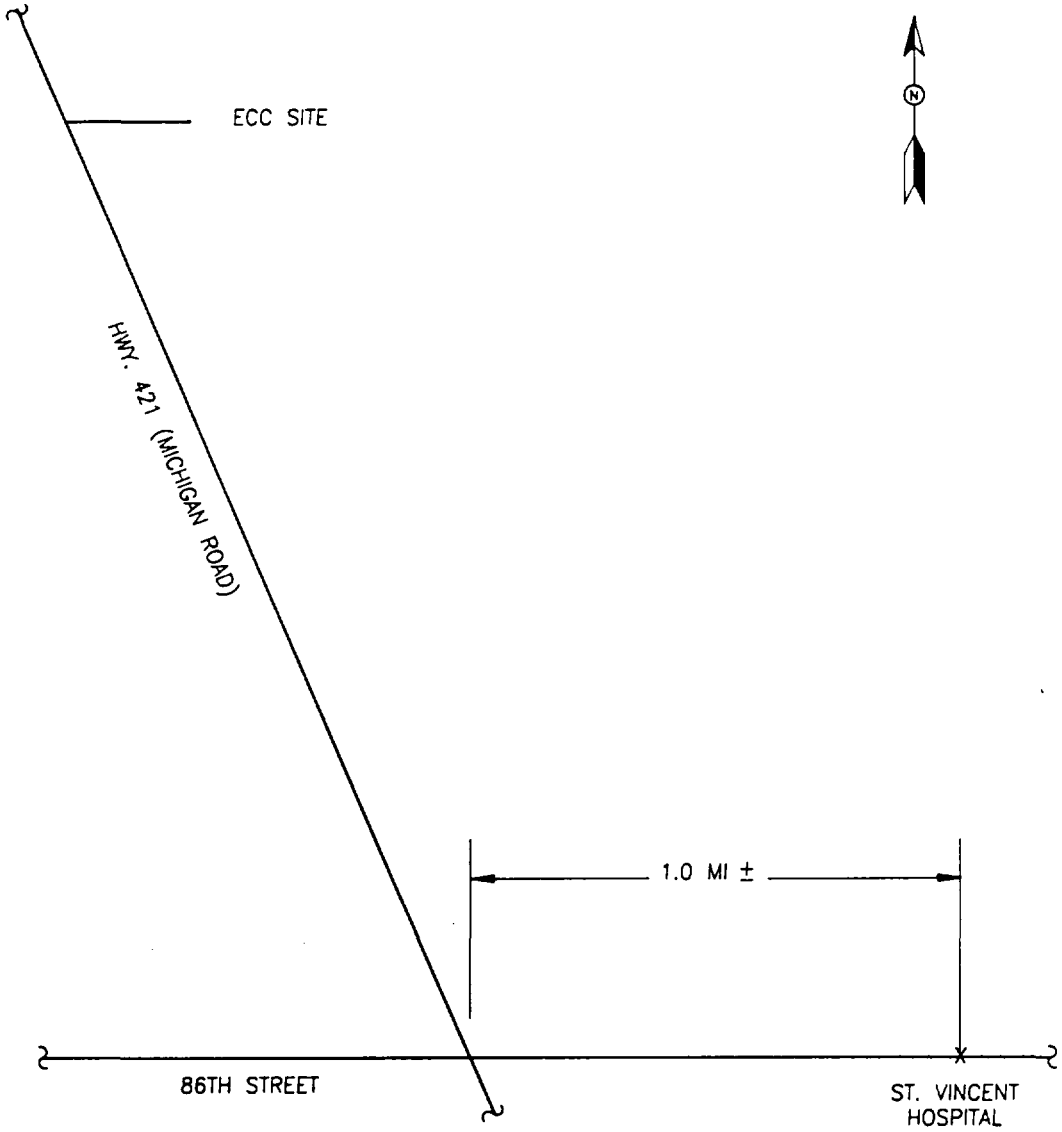
Besides assuring that all project personnel comply with the provisions of this Health and Safety Plan during the site investigations, the PSO also has the authority to stop work in the event of an emergency, to start work following any stoppage, and to approve any modifications to the Health and Safety Plan requirements warranted by field conditions.

2.2 Emergency Agencies

The following emergency telephone numbers will be recorded in all field log books and will be posted at the field office and decontamination facilities:

AGENCY	TELEPHONE NUMBER
Emergency	
Government	XXX-XXXX
Ambulance Service	873-5967
Fire Department	873-5967
Police Department	482-1412
St. Vincent Hospital	871-2345
Boone County Health Department	482-3942
Poison Control Center	(800) 442-4571

The evacuation route to St. Vincent Hospital, shown on Figure 2-1, will be posted at the field office and decontamination facilities. The hospital, local fire department and local police departments will be contacted under the direction of the PSO prior to initiating the site investigations.



EVACUATION ROUTE	FIGURE 2-1
ERM ERM-North Central, Inc.	2/27/89 mo

2.3 Key Project Personnel

The following personnel will have the primary responsibility of ensuring conformance to the Health and Safety Plan:

TITLE	NAME	AFFILIATION	PHONE NUMBER
Project Manager	XXXXXXXXX	Contractor	XXX-XXX-XXXX
Project Safety Officer	XXXXXXXXXX	Contractor	XXX-XXX-XXXX
Back-Up Project Safety Officer	XXXXXXXXXX	Contractor	XXX-XXX-XXXX

3.0 NATURE OF POTENTIAL HAZARDS

3.1 Chemical Hazards

Previous site investigations have indicated the presence of chlorinated and non-chlorinated volatile organic compounds in the ground water below the ECC site. These compounds include, but are not limited to, trichloroethane, trichloroethylene, perchloroethylene, chloroform and methylene chloride.

Since most of the contaminants detected on-site have relatively high vapor pressures, the primary exposure pathway during f ld activities will be via the inhalation of organic vapors. A , all intrusive field activities (e.g., trenching, soil bori s, monitor well installation, soil sampling, ground water sampling, etc.) will have a potential dermal contact exposure pathway. The ingestion of contaminants is not likely if normal precautions concerning personal hygiene are followed.

Table 3-1 summarizes the primary contaminants detected during previous site investigations and their corresponding threshold limit values for inhalation (TLVs). These threshold limits are based on standards reported by the American Conference of Governmental Industrial Hygienists (ACGIH). The table also contains a summary of dermal toxicity data, obtained from USEPA's "Standard Operating Safety Guidelines," and health hazard data as found in the National Institute for Occupational Safety and Health, "Pocket Guide to Chemical Hazards."

TABLE 3-1

SUMMARY OF EXPOSURE LIMITS AND TOXICITY DATA

Primary Substances Detected in Previous Site Investigations	Inhalation Pathway Threshold Limit Value 8 Hr. Exposure (ppm)	Dermal Contact Pathway		
		Skin Penetration (S)light (M)oderate (H)igh	Local Toxicity* (S)light Hazard (M)oderate Hazard (E)xtreme Hazard	Systemic Toxicity* (S)light Hazard (M)oderate Hazard (E)xtreme Hazard
Chloroform	10	M	M	S
Methylene Chloride	50	M	M	M
Perchloroethylene	50	M	M	S
Trichloroethylene	50	M	M	S
1-1-1 Trichloroethane	350	M	M	S

*Dermal Toxicity Key

Local Toxicity:

Slight - Reddening
Moderate - Irritation/Inflammation
Extreme - Tissue Destruction

Systemic Toxocity:

Slight - LD_{50} = 500-15,000 mg/kg
Moderate - LD_{50} = 50-500 mg/kg
Extreme - LD_{50} = 1-50 mg/kg

TABLE 3-1 (cont'd)

SUMMARY OF EXPOSURE LIMITS AND TOXICITY DATA

Primary Substances Detected in Previous Site Investigations	IDLH/PEL-8-HR. TWA	Symptoms	Chemical Properties	Target Organs	First Aid
Methylene Chloride	Carcinogen/ 100 ppm	Fatigue, sleepiness, litehead, eye/nose/throat irritant, nausea, vertigo dizziness, incoordination, worsens angina	FP: ? LEL: 12% IP: 11.35eV	skin, eyes, central nervous system, cardiovascular system	Eye: irrigate immediately Skin: soap wash promptly Breath: artificial respiration Swallow: immediate medical attn
Chloroform	Carcinogen/ 10 ppm	dizziness, mental dullness, nausea, headache, fatigue, anesthitic, hepatomogaly, eye, skin irritation nervousness, muscle fatigue, insomnia, paresthesia, dermatitis, photophobia	IP: 8.82eV	liver, kidneys, skin, heart, eyes	Eye: irrigate immediately Skin: soap wash promptly Breath: artificial respiration Shallow: immediate medical attn
1-1-1 Trichloroethane	1,000 ppm, 350 ppm	central nervous system, depressant, skin and eye irritation, drowsiness, poor equilibrium, headache	FP: None LEL: 7%	skin, central nervous system, cardiovascular system	Eye: irrigate immediately Skin: soap wash promptly Breath: artifical respiration Swallow: immediate medical attn
Trichloroethylene	Carcinogen/ 100 ppm	headache, vertigo, visual distrubance, tremors, somnolence, nausea, vomiting, eye irritant, dermatitis, cardiac arrhythmias, paresthesia	FP: None LEL: 11% IP: 9.47eV	respiratory system, heart, liver, kidneys, central nervous system, skin	Eye: irrigate immediately Skin: soap wash promptly Breath: artificial respiration Swallow: immediate medical attn
Perchloroethylene	Carcinogen/ 300 ppm	eye irritant	Not Combustible IP:8.56eV		Eye: irrigate immediately Skin: soap wash promptly Breath: artificial respiration Swallow: immediate medical attn

** FP: Flash Point
LEL: Lower Explosive Limit in air, % by volume
IP: Ionization Potential

Of the primary substances detected in previous site investigations, the lowest threshold limit value for an eight-hour exposure is 10 ppm. Therefore, if air monitoring during the site investigation indicates an organic vapor concentration between background level and 5 ppm above background, Level C respiratory protection (air purifying respirators) will be required. If average organic vapor concentrations exceed 5 ppm above background level, the exclusion zone will be evacuated, and all personnel will rendezvous in the support zone. A decision will be made as to how to proceed following discussion with the PSO. The available data show a moderate level of dermal toxicity; therefore, chemical resistant gloves (e.g., neoprene or nitryl) will be required for any task in which dermal contact with contaminated materials is possible.

In addition to the inhalation and dermal pathways, other exposure pathways are potential hazards to on-site personnel. Although they are less hazardous than the inhalation and dermal contact routes, precautions should be taken to avoid the following potential exposure pathways:

- Ingestion of contaminated ground water.
- Ingestion of contaminated surface soils.
- Eye contact with any contaminated materials.

To mitigate these potential hazards, a thorough program of personnel decontamination and hygiene will be maintained during the site investigations. Also, splash protection (e.g., goggles, neoprene boots, and chemical resistant gloves) will be utilized during the sampling or handling of any contaminated liquids. Details on personal protective equipment and procedures are provided in Section 8 of the Health and Safety Plan. Specific steps for decontamination of equipment are included in Section 7 of the Health and Safety Plan.

3.2 Physical Hazards

The primary physical hazards associated with the site are heat stress and cold weather exposure. Other potential physical hazards to on-site personnel include falling, tripping, slipping, or excessive noise.

Heat stress may be of concern depending on the ambient temperature and type of protective clothing required during the site investigation. Impermeable protective clothing, such as chemical resistant Tyvek coveralls, will reduce the body's ability to dissipate heat, thus increasing the chance of heat related problems.

Heat exhaustion is a response to heat characterized by fatigue, weakness, and collapse due to intake of water inadequate to compensate for loss of fluids through sweating. Heat stroke is a response to heat characterized by extremely high body temperature and disturbance of the sweating mechanism. Heat stroke is an

immediate, life-threatening emergency for which medical care is urgently needed.

One or more of the following control measures will be used to control heat stress:

- Employees will be informed of the symptoms of heat stress and heat exhaustion.

- An adequate supply of cold water or a commercial saltwater solution mix, such as Gatorade, will be provided to all employees.

- Employees involved in work tasks requiring the use of impermeable clothing will be required to take periodic breaks. The frequency of breaks is dependent on the temperature.

- All breaks will be taken in a shaded rest area where employees will be required to remove impermeable protective garments during rest periods.

- All employees will be informed of the importance of adequate rest, replacement of lost body fluids, and proper diet to prevent heat stress.

If the project extends into the winter months, cold weather exposure could become an occupational stress that needs to be addressed. Several factors influence the development of a cold weather related injury: (1) ambient temperature, (2) wind velocity, and (3) the presence of moisture. The following precautions will be used to avoid potential frost-bite injuries or hypothermia during the site investigations:

- Cold weather exposure hazards will be discussed during the safety training program covered prior to initiation of the field activities.

- Thermal socks, thermal underwear, hard hat liners, or other cold weather gear will be provided to employees.

- Periodic breaks will be required during cold weather field activities, with warm drinks provided.

- Employees who become wet from perspiration or precipitation will be instructed to return to the hotel for a change of clothes.

There is a small risk associated with injuries resulting from falls, tripping over tools or equipment, slipping on wet surfaces, or exposure to noise in excess of acceptable limits. Field personnel will be made cognizant of the fact that protective apparel and equipment may limit visibility, hearing, and manual dexterity. This will increase the physical hazards of certain field activities. Specific precautions to prevent injuries related to physical hazards are covered in the general work procedures presented in Section 4 of the Health and Safety Plan.

4.0 GENERAL WORK PROCEDURES

This section presents an overview of the health and safety issues associated with the general work procedures for the of the ECC.

4.1 Supervision and Audits of Safety Procedures

All field work completed under the alternative remedial action plan will be audited by the Project Safety Officer (PSO) to ensure compliance with the Health and Safety Plan. The PSO will specify the level of protective clothing for field personnel involved in the site investigation activities, as outlined in Section 8 of this plan. The PSO will also be responsible for all air monitoring required to determine which level of respiratory protection is needed for specific field activities.

In the event of an accident, exposure to contamination, or other emergency, the PSO will stop work and determine the appropriate response actions. Field personnel will be instructed to immediately leave the area, and to remain in their protective gear. Injured personnel will be removed from the immediate hazard. Normal evacuation routes will be established by the PSO prior to initiating the field activities.

4.2 Site Control and Work Zones

Site control and the delineation of specific work zones are necessary to reduce the possibility of exposure to site contamination without proper personal protective gear and to prevent removal of contaminants by personnel or equipment leaving contaminated areas of the site. The possibility of exposure or trans-location of site contaminants will be reduced by establishing three contiguous zones as follows:

Zone 1: Exclusion Zone

The exclusion zone will encompass all potentially contaminated areas within the site. The exclusion zone will encompass all potentially contaminated areas within the established remedial boundaries (Figure 2-3-Exhibit A). The location of the exclusive zone will be established at the commencement of field activities and modified as necessary during the Remedial Action.

However, as site investigation activities progress, the exclusion zone may be modified by the PSO due to such factors as site topography, high vapors or particulate in the air, and soil and water sample analytical results from the investigation. All personnel entering the exclusion zone must wear the level of protection specified by the PSO. An entry and exit checkpoint will be established at the periphery of the exclusion zone to regulate the flow of personnel and equipment

into and out of the zone and to verify that procedures established to enter and exit are followed. During drilling operations, the exclusion zone will include, as a minimum, a 35-foot radius around the drill rig. The exclusion zone will be established at the commencement of field activities.

Zone 2: Contamination Reduction Zone

A contamination reduction zone will be established adjacent to the exclusion zone checkpoint to provide a transition between contaminated and clean areas. Protective gear worn by personnel will be cleaned and removed in Zone 2, prior to entering a clean area. All decontamination facilities for personnel and equipment will be located within this zone.

Zone 3: Support Zone

A support zone will be established in a non-contaminated or clean area at the periphery of the site. Support facilities (e.g., office, equipment storage, sample storage, etc.) will be located in this zone. Since normal work clothes are appropriate within the support zone, protective gear that has not been decontaminated will not be allowed in Zone 3.

The PSO will be responsible for delineating and controlling access to work zones at the site. Stakes and caution tape or flagging will be placed between the zones. Additionally, the level of protection required in the exclusion zone may be modified by the PSO.

4.3 General Work Rules for Field Activities

The following is a list of general safety rules to be followed by all personnel involved in field activities at the ECC site:

- Contaminated protective equipment (e.g., respirators, boots, gloves, etc.) shall not be removed from the exclusion zone until it has been cleaned or properly packaged and labeled.

- Legible precautionary labels shall be affixed to containers holding waste, debris, or disposable protective clothing.

- Eating, drinking, or smoking will not be allowed within the exclusion or contamination reduction zones.

- Transportation and disposal of contaminated residuals from site activities shall comply with all applicable local, state, and federal regulations. These items will be addressed by the transporter and disposal facility.

- Emergency equipment shall be placed in readily accessible locations within the support zone.

- Employees will be required to wash their hands and face before eating, drinking, or smoking.

- Decontamination facilities and areas used to store contaminated residues will be designed with containment berms and will be lined with an impermeable material.

- Portable eye-wash units will be placed not more than 100 feet from the hazard. Other emergency equipment will be located in the support zone or the exclusion zone dependent on the type of hazard and operation.

- Field personnel shall avoid excessive contact with potentially contaminated substances (e.g., avoid walking through puddles, kneeling on the ground, leaning against drums, etc.).

- Field monitoring equipment shall not be placed on potentially contaminated surfaces.

- Field personnel will be trained to recognize the signs and adverse effects of exposure to hazardous substances present on site.

- Field personnel will employ the "buddy system" when working in the exclusion and decontamination zones.

5.0 SAFETY TRAINING

All personnel will be required to: 1) have completed a 40-hour training course as stated in 29 CFR 1910.120, 2) participate in 8-hour annual retraining courses as specified in 29 CFR 1910.120, and 3) must attend a site safety training program. The content of this program, which will include instructions concerning possible hazards, is outlined below:

1. Introduction to the hazardous materials previously identified at the site

    a. Definition of hazardous materials

    b. Classification of hazardous materials

    c. Potential for ignitability, corrosivity, reactivity, and/or toxicity

2. Toxicology impacts of possible contaminants

    a. Expected exposure levels

    b. Routes of probable exposure

        o Respiratory tract

        o Dermal penetration

c. Expected toxic effects

d. ACGIH threshold limit levels

e. Carcinogens

3. Safety planning and principles to be used on the job site

a. Emergency medical care and treatment

b. General safety practices

c. Emergeny telephone numbers

d. On-site communications

4. Respiratory protection level used on site

a. General principle

b. Potential hazards

c. Protective measures provided by air monitoring

d. Response (evacuation) requirements in presence of abnormally high volatile organics in ambient air

5. Protective clothing requirements

   a. Level of protection

   b. Articles of protective clothing

   c. Purpose of each article of protective clothing

   d. Proper use of protective clothing

6. Decontamination

   a. Concern regarding proper decontamination

   b. Extent of decontamination required

   c. Personnel decontamination under normal conditions

   d. Personnel decontamination during medical emergencies

   e. Decontamination of equipment

   f. Disposal of contaminated materials

Field personnel will be required to sign a certificate at the conclusion of the training program stating that they understand and will abide by the provisions found in this Plan.

6.0 ENVIRONMENTAL MONITORING PROGRAM

Based on results from previous site investigations conducted by CH2M Hill the primary contaminants present at the site are volatile organic compounds. Therefore, environmental monitoring during field activities will be limited to measurements of organic vapor concentrations of the ambient air in the immediate vicinity and downwind of sampling or work areas. An HNu model PI-101 photoionization meter with a 11.7 eV lamp will be used to conduct this ambient air monitoring. Frequent calibration of the HNu meter will be made to ensure that readings are accurate.

Ambient air monitoring will be conducted prior to and during all field activities that involve

Results will be recorded in the PSO's field log book and will be used to specify the level of the respiratory protection required for each specific field activity.

Organic vapor readings will also be obtained at the selected perimeter locations that are downwind of the field activiti assess the effect of these activities on the surrounding area. The results of these readings will also be recorded in the PSO's field log book. Portable wind direction/speed indicators will be used to determine wind direction on site.

7.0 DECONTAMINATION PROCEDURES

Decontamination of equipment and personnel will be performed to extend the useful life of safety equipment, to prevent cross contamination of samples, and to prevent worker exposure to hazardous substances. All decontamination activities will be carried out within the contamination reduction zone, and any residuals generated (i.e., decontamination water, disposable gloves, disposable Tyvek suits, etc.) will be placed in secure containers for disposal in accordance with local, state, and federal regulations.

7.1 Equipment Decontamination

Equipment and sampling tools will be decontaminated by steam cleaning to remove any encrusted materials or residual contamination. Sampling tools (e.g., split spoon samplers, hand augers, soil gas probes, etc.) will be determined as follows:

1. Steam clean or detergent (TSP or Alconox) wash.

2. Rinse with methanol or acetone.

3. Triple rinse with distilled water.

A decontamination pad will be established by constructing a sand berm around a small excavated area and placing a thick-walled plastic liner over the entire bermed area. This area will be pitched to one end to allow the drainage and accumulation of

decontamination washwaters that will be subsequently removed with a wet vacuum or positive displacement pump and placed in 55-gallon drums. All steam cleaning, washing, and rinsing procedures will be conducted within this decontamination pad.

7.2 Personnel Decontamination

Personnel decontamination will consist of soap and water washings to remove contaminants from reusable protective gear (i.e., neoprene boots, chemical resistant gloves, full-faced respirators) and doffing of the gear. Disposable protective apparel will be doffed in such a manner to prevent the spread of contaminant to other clothing (i.e., remove gloves by turning them inside out). The general sequence of decontamination and doffing of protective apparel is described below. The extent of washing required or modifications to the sequence will be specified by the PSO.

The detailed procedure for personnel decontamination will depend on the level of respiratory and dermal protection required for the specific work task. The following procedure is based on Level C respiratory protection (air purifying respirators) and full splash protection:

1. Wash and rinse over boots.

2. Wash and rinse chemical resistant outer gloves.

3. Remove chemical resistant outer gloves.

4. Remove chemical resistant overboots.

5. Remove hard hat and full-faced respirator.

6. Wash and rinse full-faced respirator.

7. Doff disposable chemical resistant coveralls and place in plastic bag.

8. Doff disposable inner glove and place in plastic bag.

9. Wash hands and face.

Several of the foregoing steps will not be required if lesser degrees of respiratory or dermal protection are worn by field personnel. The PSO has the authority to change the number and order of decontamination steps listed above.

8.0 PERSONNEL PROTECTIVE EQUIPMENT

The type of protective equipment required is dependent on the nature and location of the work being performed. All activities in the support zone will be performed under Level D protection, as described in the USEPA "Standard Operating Safety Guidelines."

All personnel on-site and all visitors to the site will be required to sign a personnel log sheet each day they are at the site. This sheet is included as Figure 8-1. The PSO will ensure that the personnel log sheet is properly completed.

8.1 Respiratory Protection

If the HNu meter indicates an average reading above background levels and less than 5 Vppm above background, during the field investigation, Level C respiratory protection will be required. Level C protection includes full-faced air purifying respirators equipped with combination cartridges for removing organic vapors, dusts, mists, and fumes. All workers will abide by the requirements of their employer's respiratory protection program prepared in accordance with 29 CFR 1910.134. The following guidelines will be followed when using Level C respiratory protection:

- Air purifying cartridges will be replaced at the end of each shift or when a break through occurs.

FIGURE 8-1

PERSONNEL LOG SHEET

ECC SITE

_____

DATE

PSO Signature	Affiliation	Time In	Time Out

SIGNATURE	AFFILIATION	TIME IN	TIME OUT	TRAINED IN ACCORDANCE WITH 29 CFR 1910.120?

- Only employees who have had a pre-issue qualitative fit test will be allowed to work under Level C respiratory protection.

- Only employees who have passed a medical examination, including a pulmonary function test will be allowed to use Level C respiratory protection.

- Excessive facial hair (e.g. beards) that prohibits a proper seal between the respirator and face will not be allowed.

Level C respiratory protection will be required for any sampling of waste residuals in tanks or containers, regardless of the HNu readings.

8.2 Dermal Protection/Protective Clothing

The following protective clothing and equipment shall be worn by any personnel entering the exclusion zone or contamination reduction zone:

- Hard hat

- Disposable Tyvek coveralls

- Disposable PVC gloves

- Neoprene boots with steel toe and shank and overboots

Any work involving an intrusive activity (e.g., soil sampling, monitor well installation, etc.) or any activity involving the handling of contaminated liquids will require the following protective clothing:

- Hard hat
- Safety goggles (unless full-faced respirators are required)
- Disposable Tyvek coveralls
- Disposable PVC inner gloves
- Chemical resistant outer gloves
- Neoprene boots with steel toe and shank and overboots
- Sleeves taped to gloves and cuffs taped to boots during handling of contaminated liquids

Upgrading or downgrading protective equipment will be the decision of the PSO, and will be based on an assessment of the exposure potential.

9.0 EMERGENCY PROCEDURES

The Health and Safety Plan has been established to allow site operations to be conducted without adverse effects on work or health and safety. In addition, emergency response procedures have been developed to cover extraordinary conditions that may occur at the site. A large scale map of the work site showing the locations of the work zones, site features (buildings, drainages, etc.), and any unusual topographic features will be submitted.

9.1 Worker Injury

If an employee working in a contaminated area is physically injured, general first-aid procedures will be followed. The following emergency equipment will be located onsite: Self-Contained Breathing Apparatus (SCBAs), first aid kit, fire extinguisher, eye-wash unit, and emergency air horns. If workers will be located in a secluded area, 2-way radio equipment will be used for communication between workers and support personnel. Depending on the severity of the injury, emergency medical attention may be sought. If the employee can be moved, he or she will be taken to the support zone. Decontamination procedures, additional first aid, or preparation for transportation will be performed in this zone.

If the injury to the worker is chemical in nature, the following first-aid procedures will be instituted:

- Eye Exposure - If contaminated materials enter a worker's eyes, they will be flushed with water for 15 minutes and medical attention will be sought immediately.

- Skin Exposure - If skin irritation results from dermal contact with contaminated materials, the affected area will be washed with a mild soap or detergent and rinsed with water for at least five minutes. Medical attention will be sought if irritation in the effected area persists.

9.2 Fires

If a localized fire breaks out, dry chemical fire extinguishers will be used to bring the fire under control. If necessary and feasible, soil or other inert material will be placed on the burning area to extinguish the fire. If appropriate, local fire fighting authorities will be contacted for notification and/or assistance.

If an uncontrolled fire develops, that may release potentially toxic gases, all persons in the immediate vicinity will be evacuated. The local fire department will be contacted immediately and notified of the fire and materials involved.

Evacuation of local residents, if required, will be the responsibility of local law enforcement.

9.3 Spills

In the event of a significant spill at the site, the affected area will be isolated from local traffic patterns by the PSO. Spilled solids will be removed and loaded into 55-gallon drums for subsequent disposal. Liquid spills will be solidified with absorbent material and loaded into 55-gallon drums for subsequent disposal. Transportation and disposal of any spill clean-up residual will be in accordance with all local, state, and federal requirements.

9.4 Evacuation Plan

If a site emergency necessitates evacuating field personnel, the PSO will notify the field team leader and the appropriate sign (three blasts on an emergency air horn) for site evacuation wi be given. All available vehicles located outside the exclusi zone will be used in evacuation. All personnel will exit t site and meet at a nearby rendezvous point. The PSO will be responsible for ensuring that all personnel have been evacuated. The route to and location of this point will be given to all field personnel and will be posted at the site. The evacuation route within the site will depend on which direction affords the most direct route away from the hazard necessitating the evacuation.

The visitor log will be used to ensure that all individuals are accounted for. The local police or emergency coordinators will be notified of the emergency and the suspected impact on the local community. Local evacuation, if required, will be the responsibility of law enforcement. Contacts with local officials will be maintained until the situation is abated.

REFERENCES

1. United States Environmental Protection Agency (USEPA), 1984, "Standard Operating Safety Guidelines."

2. OSHA - Hazardous Waste Operations and Emergency Response Interim Final Rule, 29 CFR Part 1910, 1986.

3. United States Environmental Protection Agency (USEPA), 1985, "Guidance on Remedial Investigation Under CERCLA."

4. United States Environmental Protection Agency (USEPA), 1986, "Superfund Public Health Evaluation Manual."

5. United States Environmental Protection Agency (USEPA), 1986, Toxicology Handbook: "Principles Related to Hazardous Waste Site Investigation."

6. United States Environmental Protection Agency (USEPA), 1988, Draft "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA."